

FIG. 1

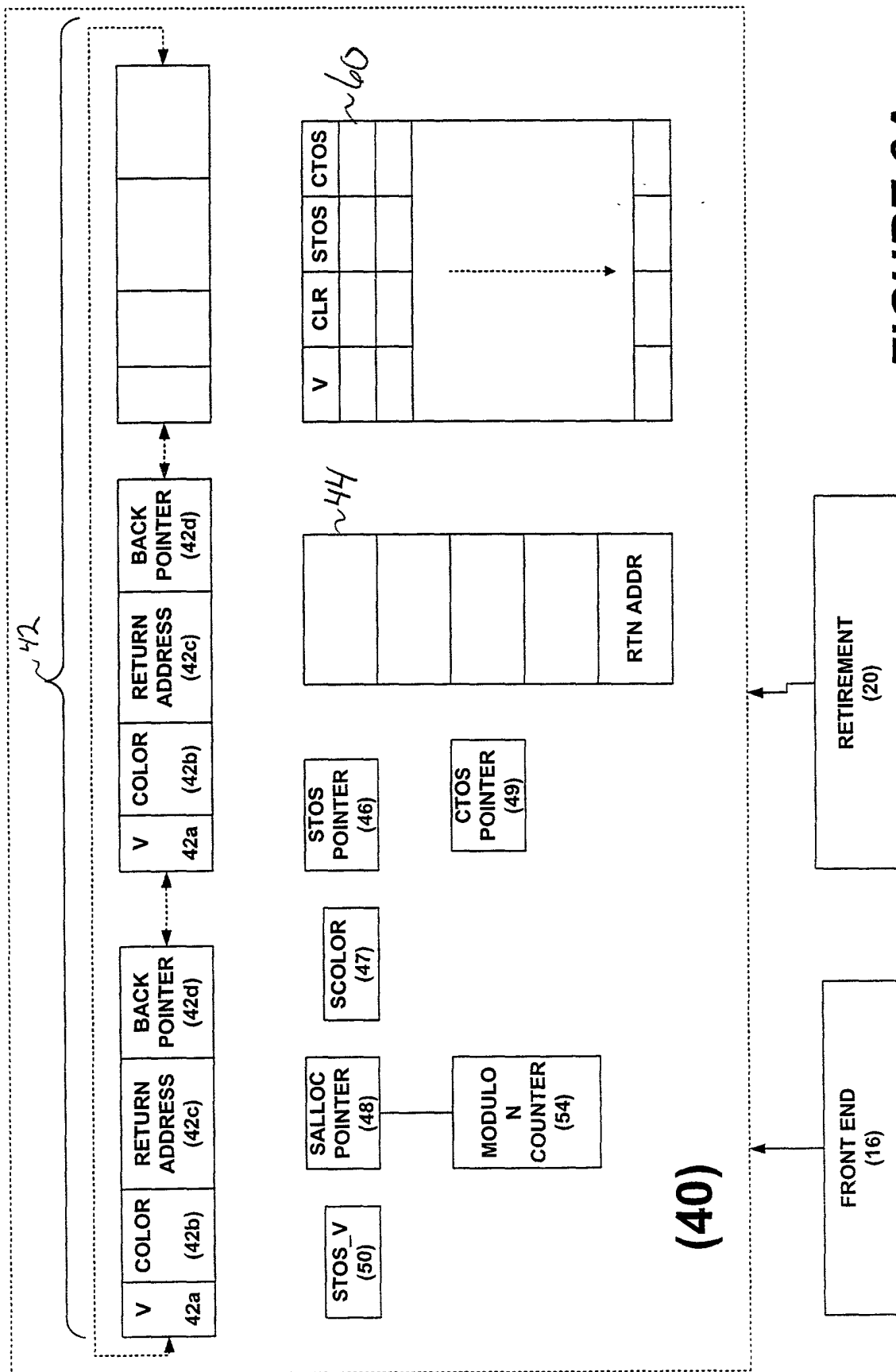


FIGURE 2A

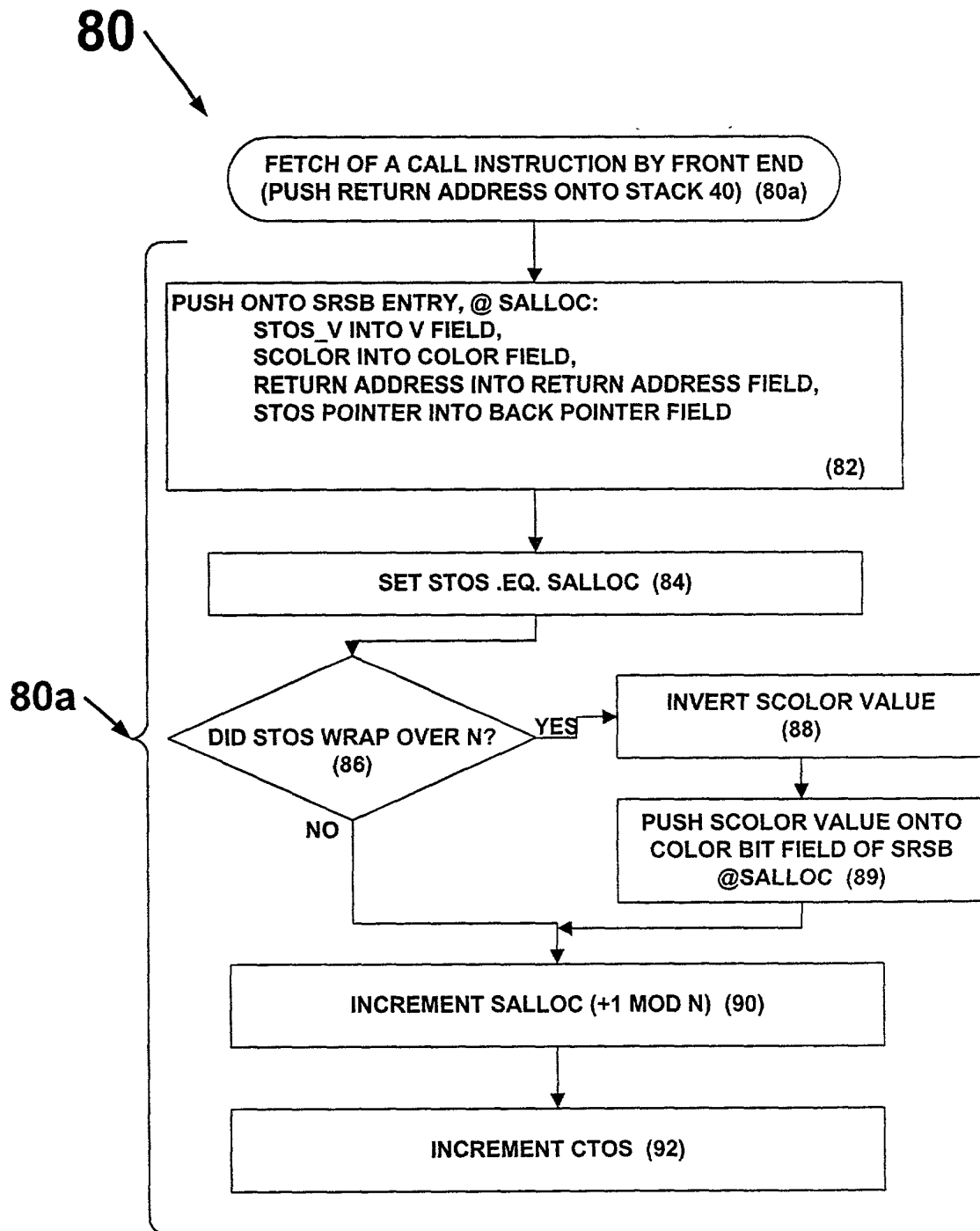


FIGURE 2B

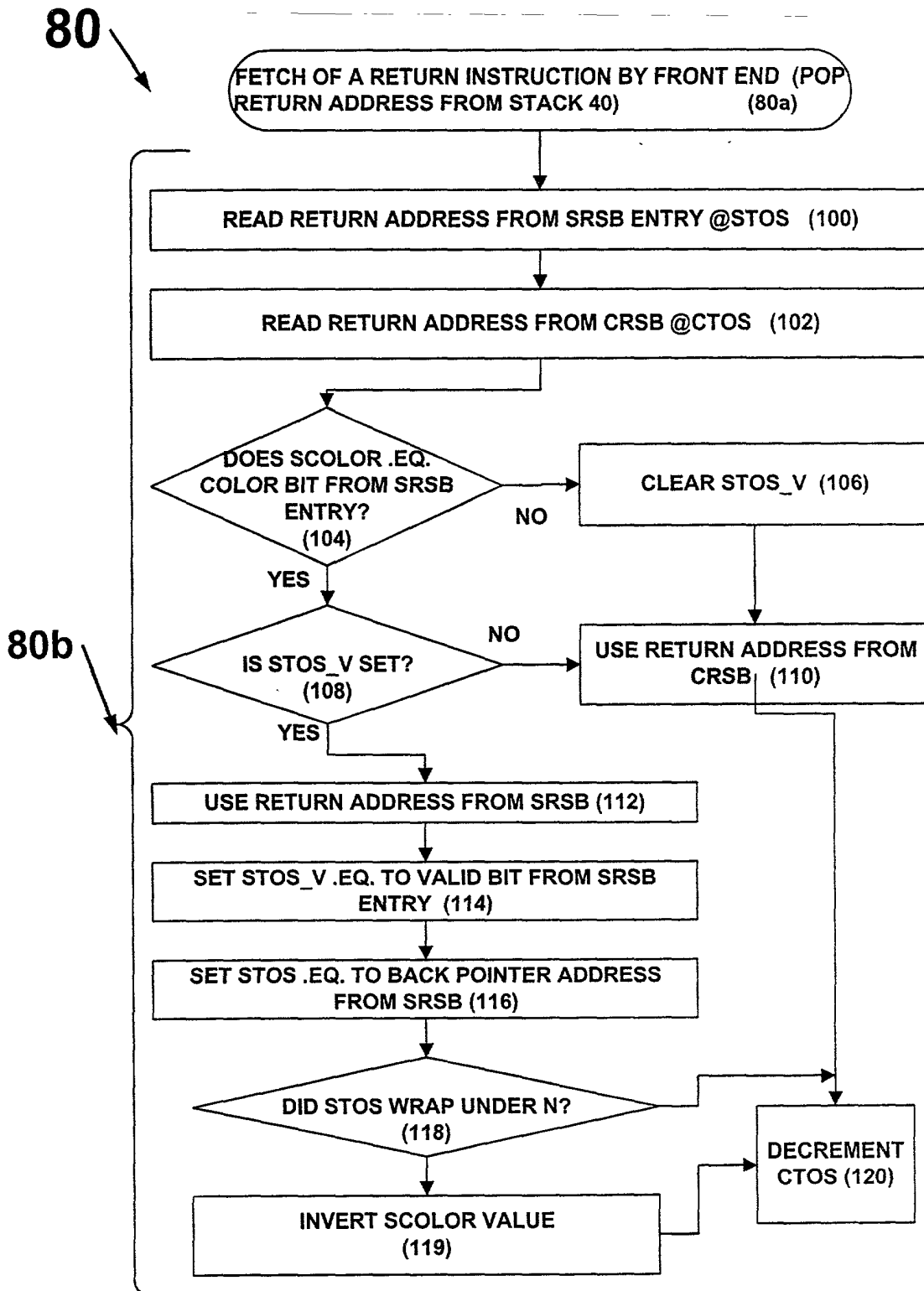


FIGURE 2C

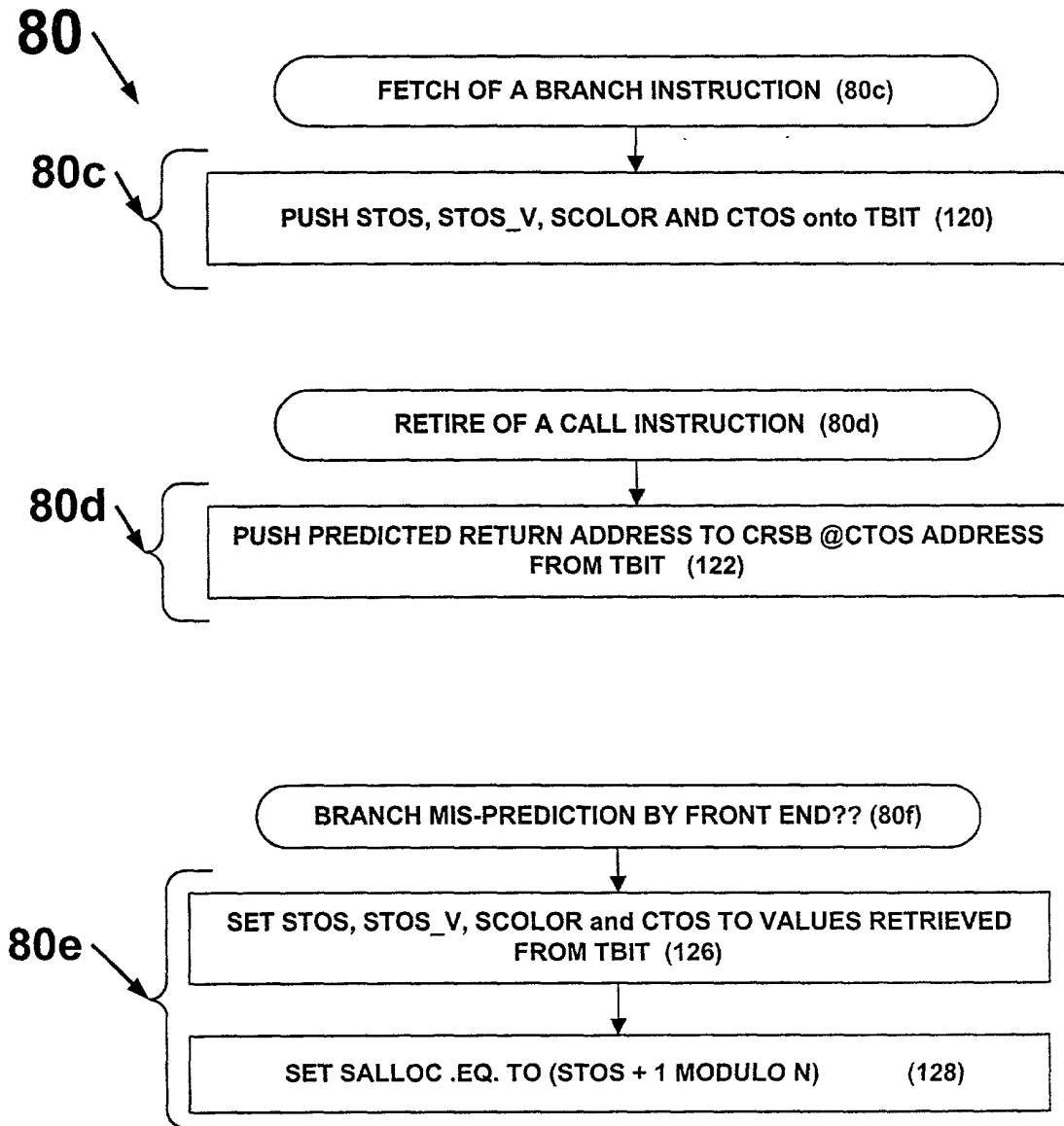


FIGURE 2D



140

FETCH OF A CALL INSTRUCTION BY FRONT END (PUSH RETURN ADDRESS ONTO STACK 40) (140a)

PUSH ONTO SRSB ENTRY, @SALLOC:
 RETURN ADDRESS INTO RETURN ADDRESS FIELD,
 STOS POINTER AND SRSB/CRSB INDICATOR INTO BACK POINTER FIELD (141)

140a

SET V-BIT FIELD IN SRSB ENTRY @SALLOC (142)

SET STOS .EQ. SALLOC (144)

INCREMENT SALLOC (+1 MOD N) (146)

FETCH OF A RETURN INSTRUCTION BY FRONT END (POP RETURN ADDRESS FROM STACK 40) (140b)

140b

DOES STOS POINT TO
 CRSB? (148)

NO

IS ENTRY IN SRSB
 @STOS VALID? (150)

YES

YES

NO

READ RETURN ADDRESS FROM
 CRSB @STOS (156)

READ RETURN ADDRESS FROM SRSB
 ENTRY @STOS (152)

DECREMENT STOS (-1 MOD N)
 (158)

SET STOS TO CONTENTS OF BACK
 POINTER FIELD FROM SRSB (154)

FIGURE 3B

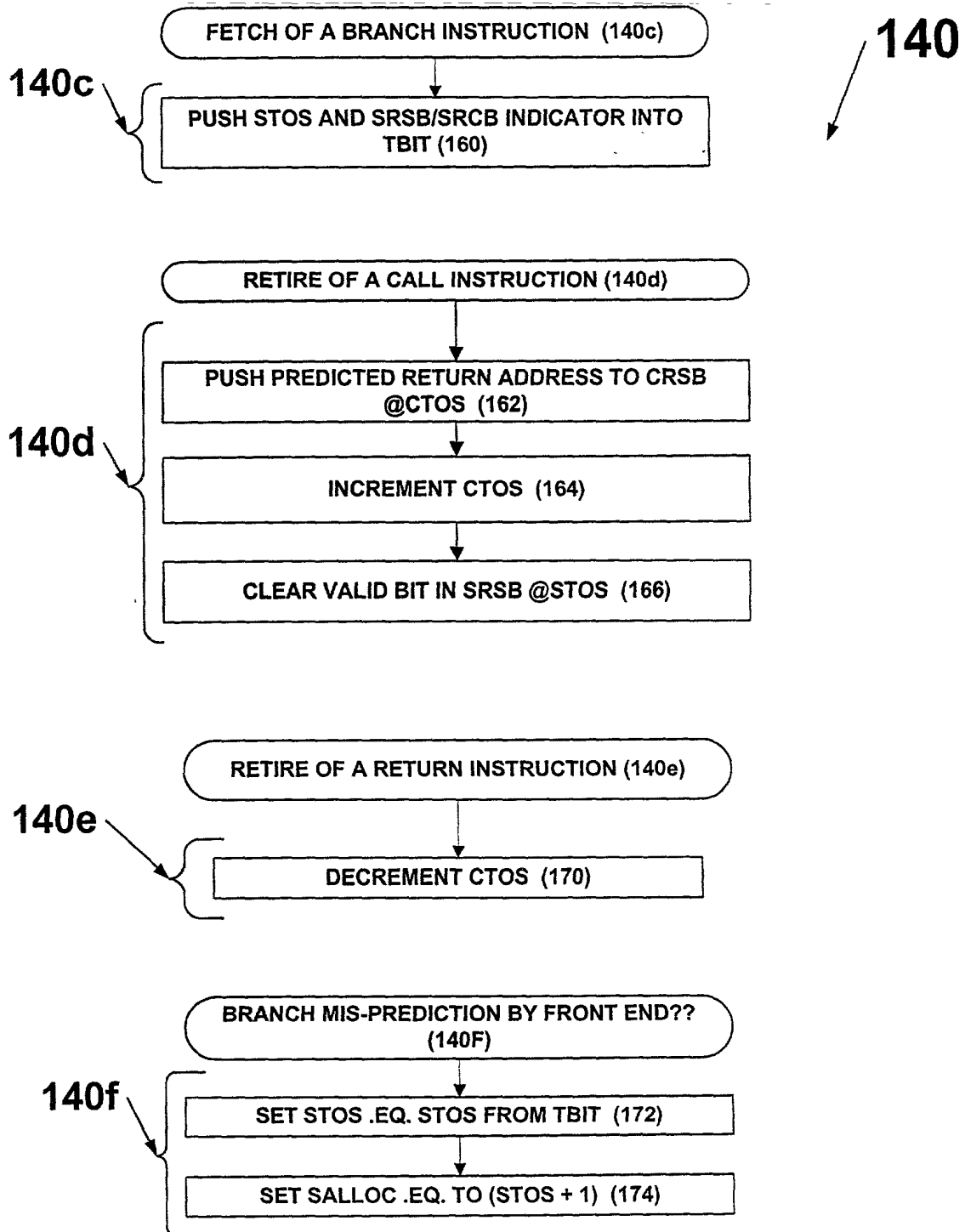


FIGURE 3C